

s/n 10/527,611
198-0002US**REMARKS**

The Office Action objected to claims 7, 13 and 25 because of certain informalities. The current amendment is intended to address these objections. However, the Office Action states: "In claim 25 line 24, 'the retainer' lacks proper antecedent basis." It is submitted that proper antecedent basis is to be found in line 5 of claim 25.

The Office Action rejected claims 23 and 24 under §102(b) as being anticipated by U.S. Patent No. 5,509,487 to Duffy et al. The Office Action contends that the drill chuck in the coring apparatus described in Duffy "allows for rotation of the drill bit when powered by the drive motor and prevents rotation of the drill bit when the motor is not operating."

In the apparatus of Duffy, the drills 44 rotate throughout the entire reciprocating cycle: "The coring apparatus includes ... means for causing rotational movement of the drilling members during vertically reciprocatory movement thereof from an operative position when the ground surface is penetrated by the drilling members to an inoperative position when the drilling members are clear of the ground surface." [col. 1; lines 40-49]

Stopping the rotation of the drills is accomplished by means of a clutch. "Suitably the drive motor is coupled by clutch means to the belt drive for uncoupling of the drive motor and the belt drive when required." [col. 2; lines 14-16]

Claim 23 requires that the claimed turf drill chuck comprises "means for allowing rotation of an engaged drill bit during insertion of the drill bit into turf" and also comprises "means for preventing rotation of the drill bit during withdrawal from the turf." No such functionality of the drill chuck is described in Duffy. If sufficient torque were applied to the drills 44 to overcome frictional forces in the drive train and the compression stroke of the stopped motor, the drill bits of the Duffy apparatus would rotate. The chucks of the Duffy apparatus do not comprise means for allowing rotation during insertion and preventing rotation during withdrawal as required by claim 23. Therefore, Duffy does not anticipate claim 23.

Claim 24 requires that the claimed turf drill chuck comprises "means for allowing rotation of an engaged drill bit when a compressive force is applied to the drill bit and

s/n 10/527,611
198-0002US

preventing rotation of the drill bit when a tensile force is applied to the drill bit.” The drill chuck described in Duffy has no means responsive to a change from compressive force to tensile force applied to a drill bit held in the chuck. Therefore, Duffy does not anticipate claim 24.

The Office Action rejected claims 23 and 24 under §102(b) as being anticipated by U.S. Patent No. 2,918,130 to Thom. The Office Action contends that the drill chuck in the hole forming machine described in Thom “allows for rotation of the drill bit when powered by the drive motor and prevents rotation of the drill bit when the motor is not operating.”

In the hole forming machine described in Thom, rotation of the drills is controlled by a hand-operated clutch: “In normal operation with the engine running the drills will be rotated as long as the clutch elements interengage with each other, and the drills will stop when the clutch elements are disengaged.” [col. 4; lines 33-37] “An operating lever 56 connected with wire 52 of the cable 51 is adjacent to cross member 55 where it is readily accessible to a hand of the operator for actuation of the clutch.” [col. 4; lines 43-47]

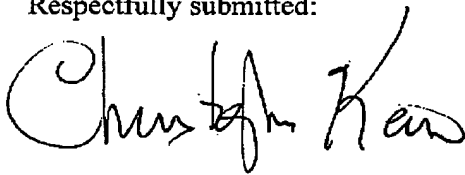
Claim 23 requires that the claimed turf drill chuck comprises “means for allowing rotation of an engaged drill bit during insertion of the drill bit into turf” and also comprises “means for preventing rotation of the drill bit during withdrawal from the turf.” No such functionality of chuck 12 is described in Thom. If sufficient torque were applied to the drills 14 to overcome frictional forces in the drive train and the compression stroke of the stopped motor, the drill bits of the Thom apparatus would rotate. Therefore, claim 23 is not anticipated by Thom.

Claim 24 requires that the claimed turf drill chuck comprises “means for allowing rotation of an engaged drill bit when a compressive force is applied to the drill bit and preventing rotation of the drill bit when a tensile force is applied to the drill bit.” Chuck 12 of the hole forming machine described in Thom has no means responsive to a change in force applied to a drill bit held in chuck 12. Therefore, claim 24 is not anticipated by Thom.

s/n 10/527,611
198-0002US

For the reasons set forth above, it is submitted that claims 23 and 24 are allowable over the cited references. Reconsideration of the rejection is requested.

Respectfully submitted:

A handwritten signature in black ink, appearing to read "Chris D. Keirs". The signature is fluid and cursive, with the first name "Chris" being more prominent.

Christopher D. Keirs
Reg. No. 32,248
Attorney for Applicant(s)
Wong Cabello Lutsch Rutherford & Brucculeri LLP
20333 State Hwy. 249 Suite 600
Houston, TX 77070
832 446-2406
Fax: 832 446-2424
ckeirs@counselip.com